



## ABSTRACT

The method uses heat flux sensors to determine the exchange area  $A$  between a reagent and housing containing the reagent, with the aim of determining the characteristics of the 5 housing and the thermal reaction studied. The flux sensors are arranged at the housing in contact and non-contact zones of the housing with the reagent, such as to continuously determine in real time the precise surface of exchange between the housing and the reagent as a proportion of the measurements taken by each flux sensor and in such a manner as to determine the heat exchange coefficient  $U$  between the housing and the 10 reagent from the exchange area  $A$  and a measurement of the temperature  $T_r$  of the reagent and the wall of the housing respectively, particularly when thermostatted, as in the case of the application to a calorimeter.